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(54) **SPEAKER RECOGNITION USING NEURAL NETWORKS**

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(57) **ABSTRACT**

Methods, systems, and apparatus, including computer programs encoded on a computer storage medium, for performing speaker verification. In one aspect, a method includes accessing a neural network having an input layer that provides inputs to a first hidden layer whose nodes are respectively connected to only a proper subset of the inputs from the input layer. Speech data that corresponds to a particular utterance may be provided as input to the input layer of the neural network. A representation of activations that occur in response to the speech data at a particular layer of the neural network that was configured as a hidden layer during training of the neural network may be generated. A determination of whether the particular utterance was likely spoken by a particular speaker may be made based at least on the generated representation. An indication of whether the particular utterance was likely spoken by the particular speaker may be provided.